



Abstract of the Disclosure

Described are novel reversible photochromic indenonaphthopyran compounds, examples of which are 2H-5 naphtho[1,2-b]pyrans characterized by having a substituted or unsubstituted indeno group fused at the 2,3 positions of the group to the 1 side of the 2H-naphthopyran. The compounds also have substituents at the 3 position of the pyran ring. Substituents may also be present at the number 5, 6, 7, 8, 9, 10, 11, 12, or 13 carbon atoms of the compounds. compounds may be represented by the following graphic formulae:

$$R_3$$
) n
 R_1
 R_2
 R_3) n
 R_3) n

15

10

Also described are various substrates, e.g., paper, glass, organic polymeric materials, etc., that contain or that are coated with such compounds. Optically clear articles such as ophthalmic lenses or other plastic transparencies that incorporate the novel indenonaphthopyran compounds or combinations thereof with complementary photochromic compounds, e.g., indenonaphthopyrans, naphthopyrans, benzopyrans, oxazine-type compounds, etc., are also described.